

C L A I M S

1. An aqueous colloidal gold solution comprising an aqueous medium and
 - (a) gold particles in colloidal form,
 - (b) a compound having a polar tertiary amino group conjugated via a hydrophobic aromatic residue with a weaker alkaline group which can also be a part of the aromatic residue, and
 - (c) a stabilizer comprising a mercapto group (-SH) and an acidic group.
2. An aqueous colloidal gold solution according to claim 1, wherein the colloidal gold particles have an average diameter of 1 to 20 nm.
3. An aqueous colloidal gold solution according to claim 1 or 2, wherein the aromatic residue of the compound (b) is a N-heteroaromatic residue with the nitrogen atom as weaker alkaline group.
4. An aqueous colloidal gold solution according to claim 3, wherein the heteroaromatic residue is a pyridine residue.
5. An aqueous colloidal gold solution according to claims 1, 3 or 4, wherein the compound (b) is 4-dimethylamino-pyridine (DMAP).
6. An aqueous colloidal gold solution according to one of the previous claims, wherein the stabilizer (c) comprises a sulfonic acid group ($-\text{SO}_3^-$).
7. An aqueous colloidal gold solution according to claim 6, wherein the stabilizer (c) is a mercapto- (C_{1-5}) -alkylsulfonic acid salt.

8. An aqueous colloidal gold solution according to claim 7, wherein the stabilizer (c) is a 2-mercaptoethane sulfonic acid salt.

9. An aqueous colloidal gold solution according to any one of the previous claims, comprising furthermore, as evaporation blocker,

(d) a polar organic compound with a vicinal dihydroxy group or an oligomer thereof.

10. An aqueous colloidal gold solution according to claim 9, wherein the compound (d) is ethylene glycol.

11. An aqueous colloidal gold solution according to any one of the previous claims, having the following composition:

(a) 6 to 10 % by weight of the gold nanoparticles,

(b) 0.1 to 3 % by weight of the compound having a tertiary amino group,

(c) 0.2 to 0.6 % by weight of the stabilizer, and optionally

(d) 1 to 8 % by weight of the evaporation blocker, each based on the total weight of the aqueous composition.

12. An aqueous colloidal gold solution according to any one of the previous claims, having a pH of 8 to 11.

13. Ink or printer cartridges containing the colloidal gold solution of claims 1 to 12.

14. Printer cartridge according to claim 13, which is an ink jet printer cartridge.

15. A gold-coated or -impregnated substrate obtainable by application of the colloidal gold solution of any of claims 1-12 onto a substrate or by impregnation of the substrate and evaporation of the aqueous medium.

16. A gold-coated substrate according to claim 15, which is a paper.

17. A gold-impregnated substrate according to claim 15, which is a catalyst particle.

18. A gold-coated substrate according to claim 15 which is a circuit board.